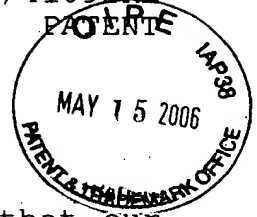


SUBSTITUTE DECLARATION AND POWER OF ATTORNEY  
REISSUE PATENT APPLICATION



As the below named inventors, we hereby declare that our citizenship, residence postal addresses and residences are as stated below; that we verily believe ourselves to be the original, first and joint inventors of the invention entitled:

**AUTOMATIC AUTOMOBILE TRANSMISSION WITH  
VARIABLE SHIFT PATTERN CONTROLLED IN RESPONSE  
TO ESTIMATED RUNNING LOAD**

the specification of which was filed on April 23, 1998 and included original U.S. Patent No. 5,510,982, issued April 23, 1996, and amendments thereto as required by 37 C.F.R. § 1.171 et seq.

We verily believe that, as provided in 37 C.F.R. § 1.175, the original U.S. Patent No. 5,510,982 is partly inoperative because we claimed less than we had a right to claim in the patent, as indicated in particular by the scope of the additional broader claims being submitted herewith as Claims 8, 9, 10 and 11. The assignee of this patent recently discovered the error and the need for broadened claim coverage upon reviewing the patent.

All errors being corrected in this reissue application up to the time of filing of this Declaration arose without deceptive intent on the part of the Applicant.

We offer to surrender the original patent and/or provide an appropriate affidavit or declaration in the event the same is lost, upon the indication of allowability of the reissue patent application.

We hereby state that we have reviewed and understand the contents of the above-identified Specification, including the Claims, as amended by any amendment referred to above. We acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (a).

We hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s) Priority Claimed

<u>3-319205</u>	<u>Japan</u>	<u>03 December 1991</u>	<u>Yes</u>
(Number)	(Country)	(Day/Month/Year)	
_____	_____	_____	_____
(Number)	(Country)	(Day/Month/Year)	

We hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 (a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u>07/985,199</u>	<u>December 3, 1992</u>	<u>U.S.P. 5,510,982</u>
(Application	(Filing Date)	<u>for which this is</u>
Serial No.)		<u>reissue appln.</u>
		(patented 4/23/96).

We hereby appoint as principal attorneys:

Herbert I. Cantor, Reg. No. 24,392; James F. McKeown, Reg. No. 25,406; Donald D. Evenson, Reg. No. 26,160; Joseph D. Evans, Reg. No. 26,269; Gary R. Edwards, Reg. No. 31,824; Jeffrey D. Sanok, Reg. No. 32,169, to prosecute and transact all business in the Patent and Trademark Office connected with this application and any related United States and international applications. Please direct all communications to:

**Evenson, McKeown, Edwards & Lenahan**  
1200 G Street, N.W., Suite 700  
Washington, D.C. 20005  
Telephone: (202) 628-8800  
Facsimile: (202) 628-8844

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may

jeopardize the validity of the application or any patent issuing thereon.

INVENTOR:  
Citizenship:

Hiroshi OHNISHI  
Japanese

Postal Address/Residence:

423, Eagle-Aoba, 10-1, Aoba-cho,  
Hitachinaka-shi, Ibaraki-Ken, Japan /  
Hitachinaka-shi, Ibaraki-ken, Japan

Dec. 12th 2000  
Date

Hiroshi Ohnishi  
Signature of 1<sup>st</sup> inventor

INVENTOR:  
Citizenship:

Kouji KITANO  
Japanese

Postal Address/Residence:

5-24, Hondori 1-chome,  
Tadotsu-cho, Nakatado-gun,  
Kagawa-ken, Japan /

Nakatado-gun, Kagawa-ken, Japan

Dec 16 2000  
Date

Kouji Kitano  
Signature of 2<sup>nd</sup> inventor

INVENTOR:  
Citizenship:

Mitsuo KAYANO  
Japanese

Postal Address/Residence:

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Higashikanesawa-cho 5-chome,  
Hitachi-shi, Ibaraki-ken, Japan /  
Hitachi-shi, Ibaraki-ken, Japan

Dec. 12th 2000  
Date

Mitsuo Kayano  
Signature of 3<sup>rd</sup> inventor

INVENTOR:  
Citizenship:

Nobuo KURIHARA  
Japanese

Postal Address/Residence:

Hachinohe Institute of Technology,  
88-1, Aza-oobiraki, Ooaza-myou  
Hachinohe-shi, Aomori-ken, Japan /  
Hachinohe-shi, Aomori-ken, Japan

Nov. 10. 2000  
Date

Nobuo Kurihara  
Signature of 4<sup>th</sup> inventor

ASSIGNEE'S CONSENT

Hitachi, Ltd., Japan, assignee of the entire right, title and interest in and to U.S. Letters Patent No. 5,510,982, hereby assents to the filing of the attached application for reissue of said patent in accordance with 37 C.F.R. §1.172.

Hitachi, Ltd. Japan

January 12. 2001  
Date

By:

Yasuo Sakuta  
Yasuo SAKUTA, Patent Attorney  
Executive Managing Director,  
Intellectual Property Group  
(Authorized Signing Officer)

**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

DATE: 04/19/93

**TO:**

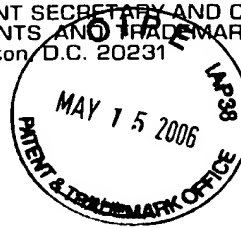
GARY R. EDWARDS

**EVENSON, MCKEOWN, EDWARDS & LENAHA**

1200 G STREET, N.W.

**SUITE 700**

WASHINGTON, D.C. 20005



38110/41092

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE U.S. PATENT AND TRADEMARK OFFICE ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT ASSIGNMENT PROCESSING SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT BRANCH, NORTH TOWER BUILDING, SUITE 10C35, WASHINGTON, D.C. 20231

ASSIGNOR:

DOC DATE: 02/02/93

ONISHI, HIROSHI

ASSIGNOR:

DOC DATE: 02/02/93

KITANO, KOUJI

**ASSIGNOR:**

DOC DATE: 02/02/93

KAYANO, MITSUO

**ASSIGNOR:**

DOC DATE: 02/02/93

KURIHARA, MOBUO

RECORDATION DATE: 02/22/93      NUMBER OF PAGES 002      REEL/FRAME 6468/0019

# DIGEST :ASSIGNMENT OF ASSIGNORS INTEREST

**ASSIGNEE :**

HITACHI, LTD.

6, KANDA SURUGADAI 4-CHOME

CHIYODA-KU, TOKYO, JAPAN

SERIAL NUMBER 7-985199

FILING DATE 02/04/93

PATENT NUMBER

ISSUE DATE 00/00/00

EXAMINER/PARALEGAL

## ASSIGNMENT BRANCH

ASSIGNMENT/CERTIFICATION SERVICES DIVISION

Form PTO-1595, 1/31/92

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Attorney Docket No. 381/41092

RECORDATION FORM COVER SHEET  
PATENTS ONLY

The Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Hiroshi ONISHI  
Kouji KITANO  
Mitsuo KAYANO  
Mobuo KURIHARA

Additional name(s) of conveying party(ies) attached?

☐ yes ☒ no

3. Nature of Conveyance:

☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

Execution Date: February 2, 1993

2. Name and address of receiving party(ies):

Name: Hitachi, Ltd.

Internal Address:

Street Address:

6, Kanda Surugadai 4-chome, Chiyoda-Ku,  
Tokyo JAPAN  
City State Zip

Additional name(s) & address(es) attached? ☐ yes ☒ no

RECEIVED

MAR 10 1993

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

U.S.P. Ser. No. 07/985,199

B. Patent No(s).

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Gary R. Edwards (Reg. No. 31,824)  
Evenson, McKeown, Edwards & Lenahan  
1200 G Street, N.W., Suite 700  
Washington, D.C. 20005

6. Total number of applications and patents involved: 1

7. Total Fee (37 CFR 3.41): \$40.00

☒ Enclosed. Please charge any underpayment in connection with this Assignment to Deposit Account No. 05-1323.

☐ Authorized to be charged to Deposit Account

8. Deposit Account No. 05-1323

(Attach dupl. copy of this page if paying by Deposit Account.)

160 TW 03/09/93 07985199

DO NOT WRITE IN THIS SPACE

1 381 40.00 CR

9. Statement and Signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Gary R. Edwards

Reg. No. 31,824

Name of Person Signing

Signature

2-22-93

Date

93347888

TOTAL NUMBER OF PAGES COMPRISING COVER SHEET: 1

OMB No. 0651-0011 (exp. 4/94)

Do not detach this portion

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks  
Box Assignments  
Washington, D.C. 20231

# ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by HITACHI, LTD., a corporation organized under the laws of Japan, located at 6, Kanda Surugadai 4-chome, Chiyoda-ku, Tokyo, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

## AUTOMATIC TRANSMISSION CONTROL SYSTEM FOR AN AUTOMOBILE

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

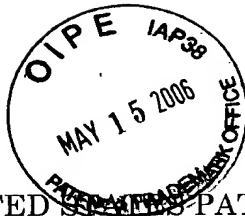
And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI, LTD.

Signed on the date(s) indicated aside signatures :

INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名日)	Witnesses (立会人サイン)
1) <u>Hiroshi Ohnishi</u> Hiroshi Ohnishi	<u>February 2, 1993</u>	<u>Kumiko Kikuchi</u>
2) <u>Kouji Kitano</u> Kouji Kitano	<u>February 2, 1993</u>	<u>Kumiko Kikuchi</u>
3) <u>Mitsuo Kayano</u> Mitsuo Kayano	<u>February 2, 1993</u>	<u>Kumiko Kikuchi</u>
4) <u>Nobuo Kurihara</u> Nobuo Kurihara	<u>February 2, 1993</u>	<u>Kumiko Kikuchi</u>
5) _____	_____	_____
6) _____	_____	_____
7) _____	_____	_____
8) _____	_____	_____
9) _____	_____	_____
10) _____	_____	_____

RECORDED  
PATENT & TRADEMARK OFFICE  
FEB 22 93

6468 0020



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 09/498,856  
First Named Inventor : Hiroshi ONISHI  
Filed : February 4, 2000  
TC/A.U. : 3661  
Examiner : Micahel Zanelli

Confirmation No. : 9387

Docket No. : 056210.41092CO  
Customer No. : 23911

Title : Automatic Transmission Control System for an Automobile

**SUPPLEMENTAL DECLARATION**  
**REISSUE PATENT APPLICATION**

**Mail Stop AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

As the below named inventors, we hereby declare as follows:

We verily believe that, as provided in 37 CFR §1.175, original U.S. Patent No. 5,510,982 is partly inoperative because we claimed less than we had a right to claim in the patent. In particular, the error relied on as the basis for this Reissue Application is that each of Claims 1-7 in the original U.S. Patent is limited by a recitation of either "weight estimation means" or a step of "calculating an estimated weight of said automobile," which limitations are not included in broadened Claims 12-14 submitted and pending in the present Reissue Application. The assignee of this patent discovered the error and the need for broadened claim coverage upon reviewing the patent.

Every error in the patent which was corrected in the present Reissue Application, and is not covered by the prior declaration submitted in this application, arose without any deceptive intention on the part of the applicant.

The original issued U.S. Patent No. 5,510,982 was surrendered to the U.S. Patent and Trademark Office on June 14, 2000 in the course of prosecuting U.S. patent application Serial No. 09/064,765, now abandoned. We have requested that the issued patent be transferred to this application.

We hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or



Serial No. «SERIAL»  
Amendment Dated:  
Reply to Office Action Mailed:  
Attorney Docket No.

inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s) Priority Claimed

<u>3-319205</u>	<u>Japan</u>	<u>03 December 1991</u>	<u>Yes</u>
(Number)	(Country)	(Day/Month/Year)	

We hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 (a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u>09/064,765 (now abandoned)</u>	<u>April 23, 1998</u>
(Application Serial No.)	(Filing Date)

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

<b>INVENTOR:</b>	Hiroshi OHNISHI
Citizenship:	Japanese
Post Office Address and Residence Address:	423, Eagle-Aoba, 10-1, Aoba-cho, Hitachinaka-shi, Ibaraki-Ken, Japan

_____ Date	_____ Signature of 1 <sup>st</sup> inventor
---------------	--

Serial No. «SERIAL»  
Amendment Dated:  
Reply to Office Action Mailed:  
Attorney Docket No.

**INVENTOR:**

Citizenship:

Kouji KITANO

Japanese

Post Office Address and  
Residence Address:

5-24, Hondori 1-chome,  
Tadotsu-cho, Nakatado-gun,  
Kagawa-ken, Japan

---

Date

---

Signature of 2<sup>nd</sup> inventor

**INVENTOR:**

Citizenship:

Mitsuo KAYANO

Japanese

Post Office Address and  
Residence Address:

1620, Oonumaryo, 20-1  
Higashikanesawa-cho 5-chome  
Hitachi-shi, Ibaraki-ken, Japan

---

Date

---

Signature of 3<sup>rd</sup> inventor

**INVENTOR:**

Citizenship:

Nobuo KURIHARA

Japanese

Post Office Address and  
Residence Address:

Hachinohe Institute of Technology  
88-1, Aza-oobiraki, Ooaza-myou  
Hachinohe-shi, Aomori-ken, Japan

---

Date

---

Signature of 4<sup>th</sup> inventor

Serial No. «SERIAL»  
Amendment Dated:  
Reply to Office Action Mailed:  
Attorney Docket No.

**ASSIGNEE'S CONSENT**

Hitachi, Ltd., Japan, assignee of the entire right, title and interest in and to U.S. Letters Patent No. 5,510,982, hereby assents to the filing of the attached application for reissue of said patent in accordance with 37 C.F.R. §1.172. The person whose signature appears below is authorized to act on behalf of the assignee in signing this consent.

Hitachi, Ltd. Japan

\_\_\_\_\_  
Date

By:\_\_\_\_\_

2766255